

## THE MODERATING ROLE OF ATTITUDE IN CONSUMERS' SERVICE ASSESSMENTS

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*This study investigates conditions in which transaction-specific evaluations of service quality and satisfaction affect customers' behavioral intentions. Specifically, attitude's moderation of satisfaction and quality effects is investigated. Multiple data collections are used to (1) test interaction effects using MRA, (2) examine hypothesized relationships using simple slopes tests, and (3) calculate the range of attitude effects. The results suggest that service quality and satisfaction have stronger effects on behavioral intentions when contrasted with consumers' global attitudes. MRA and simple slopes analyses support is identified and the effects are illustrated with regions of significance testing. These finding are shown to be consistent for both emotive and consumption satisfaction. The study suggests that firms that reward employees based on periodic, transaction-specific service quality and satisfaction assessments need to understand that improvements in customer assessments might not yield analogous improvements in outcome measures like behavioral intentions.*

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### 1. INTRODUCTION

Managers no doubt note the importance the popular press attributes to customer satisfaction and service quality perceptions. This focus on satisfaction and quality is clearly reflected in initiatives by companies as diverse as Renault, Staples, LG, and Microsoft. Specifically, Renault has rolled out a new initiative called "Plan Excellence Renault" that details twenty critical rules that workers must follow to ensure they satisfy customers' needs (de Saint-Seine, 2006). Staples recently launched an advertising campaign touting the "easy button" to increase office workers' satisfaction with rapid order placement (Amato-McCoy, 2008). Koo Bon-Moo, Chairman of LG Group, has also declared that keeping customers satisfied is the critical step in becoming the market leader in their industry (Korea Times, 2005). An *Advertising Age* survey further underscores the interest in customer satisfaction and service quality as managerial initiatives by suggesting that post-delivery and post-consumption research accounts for one-third of the revenues of the largest U.S. research firms (Oliver, 1997). With investments such as these, some industries

now report that as many as 90 percent of customers are satisfied (Reichheld, 1996).

Scholarly interest in satisfaction and service quality is equally notable. However, managers and researchers investigating the influence of service quality and satisfaction are bound to detect a noticeable gap in the literature. Discussions of satisfaction and service quality frequently refer to the "attitude-like" nature of the two constructs (e.g., Gotlieb, Grewal & Brown, 1994; Oliver, 1997), but investigations of the relationship between these constructs and consumer attitudes remain scarce. This is surprising, because attitude is recognized as an influential consumer decision-making construct and a determinant of behavioral intentions (Ajzen & Fishbein, 1977; Fishbein & Ajzen, 1980).

Revisiting the role of attitude in models depicting relationships between satisfaction, service quality, and behavioral intentions provides insights into a key question that confounds researchers and practitioners: When do service quality and satisfaction affect behavioral intentions? Although progress has been made in understanding the fundamental ordering of these constructs (e.g., Sabharwal, Soch & Kaur, 2010; Gotlieb et al., 1994), uncertainty remains about the strength of the

effects of customer satisfaction and service quality on behavioral intentions (Mittal & Kamakura, 2001; Mittal & Gera, 2012). Customers' attitude toward a service provider may offer a missing piece to this puzzle.

This study contributes to the literature in several ways. First, we investigate the moderating role that attitude toward the service provider plays in the relationships among satisfaction, service quality, and behavioral intentions. Second, the form of the interaction is considered and the range in which it applies is isolated. Third, we identify and illustrate when service quality and satisfaction assessments influence behavioral intentions and when they do not. We replicate these effects across two independent research studies with two different measures of satisfaction (emotive and consumption). Finally, we offer managerial insights into how practitioners can use this information to manage employees and set expectations.

## 2. BACKGROUND

The relationships among satisfaction, service quality, and behavioral intentions have prompted significant interest in the services marketing literature (e.g., Brady, Knight, Cronin, Hult, & Keillor, 2005; Cronin, Brady, & Hult, 2000; Mittal & Gera, 2012). Service quality perceptions represent a primarily cognitive appraisal of service performance (Bitner, 1990; Dabholkar, 1995; Dagger & Sweeney, 2007), whereas customer satisfaction represents a mainly affective response to service experiences (Oliver 1981, 1989). In keeping with attitude theory (e.g., Bagozzi, 1992) and the general views of the services marketing literature (e.g., Akroush & Khatib 2009; Cronin & Taylor, 1992; Gotlieb et al., 1994), both constructs may be important antecedents of behavioral intentions. Thus, we propose direct links between satisfaction à behavioral intentions and service quality à behavioral intentions, consistent with existing service quality (Zeithaml, Berry, & Parasuraman, 1996) and satisfaction (Bolton, 1998) models.

### 2.1 Attitude, Satisfaction, and Service Quality

Before discussing the interplay among constructs, we consider how consumer attitudes are conceptually distinct from service evaluations. Although many discussions refer to service constructs as attitude-like, service quality and satisfaction are transaction-specific evaluations that differ from global assessments like attitudes. Attitudes represent a global assessment that defines a consumer's predisposition to respond in a favorable or unfavorable manner to an object, organization, behavior, or other entity (Fishbein & Ajzen, 1980; Bearden & Teel, 1983; Oliver, 1980). Alternatively, customer satisfaction and service quality refer to evaluations based on a specific encounter. Unlike global assessments, they include evaluations of encounter-specific stimuli (Brady & Cronin, 2001). Some studies link these transaction-specific evaluations to global, attitude-like constructs (Mohr & Bitner, 1995), but few focus on their potential interactions. Specifically, prior research does not consider the role that global attitudes towards an organization or behavior can play in the relationships among such transaction-specific constructs as satisfaction, service quality, and behavioral intentions. For example, if a consumer has a highly negative attitude towards chain restaurants, will it attenuate the effects of satisfaction or quality experienced during a specific visit to such a service provider? The answer represents a critical gap in the literature.

The effects of global assessments such as attitude on service quality, satisfaction, and behavioral intentions can be predicted according to several theoretical frameworks. For example, an adaptation-level framework suggests that a person perceives and reacts to stimuli from the external environment on the basis of an adapted standard. This adapted standard acts as a sustaining force that influences subsequent evaluations, to the extent that new evaluations relate to the original position. Simply put, in the presence of typical external stimuli, the pre-existing view of a situation influences any new information gleaned from the current encounter, such that changes in the adaptation level tend to be gradual (Helson, 1964). For example, service

consumers may establish general attitudes toward service providers (adapted standards), which interact with transaction-specific satisfaction and service quality assessments to influence their behavioral intentions.

Although we expect that attitude level (favorable versus unfavorable) influences these relationships, research on consumer attitudes and expectations suggest that the effects may not be constant. Specific insights can be gained from the “ceiling/floor” effect, which posits that when consumers enter encounters with expectations that service will be excellent, even very positive encounters are unlikely to have a strong effect on behavioral intentions (Oliver, 1997). Likewise, when consumers with unfavorable attitudes enter a service encounter, a service provider may simply need to deliver service that is above the “floor” to substantially improve behavioral intentions.

Consider the following scenario: Deciding to dine out, a couple selects a restaurant one has a favorable attitude towards whereas the second is unfavorably predisposed. If the dining experience is excellent, the one having the unfavorable attitude is far more likely to return than prior to the visit. The other (favorable prior attitude) also is likely to return, but the current evaluation is qualified by the favorable attitude and has limited impact on behavioral intentions. Thus, it is suggested that pre-existing attitudes interact with new perceptions (i.e., transaction-specific satisfaction assessments and service quality perceptions) in determining behavioral intentions. According to extant theory, transaction-specific evaluations have a stronger effect on behavioral intentions when the evaluations contrast with pre-existing attitudes. Thus, the following hypotheses are considered:

- H<sub>1a</sub>:** In favorable service transactions, the effects of transaction-specific service quality on behavioral intentions are stronger when consumer attitudes toward the firm are unfavorable.
- H<sub>1b</sub>:** In unfavorable service transactions, the effects of transaction-specific service quality on behavioral intentions are stronger when consumer attitudes toward the firm are favorable.

**H<sub>2a</sub>:** In favorable service transactions, the effects of transaction-specific satisfaction on behavioral intentions are stronger when consumer attitudes toward the firm are unfavorable.

**H<sub>2b</sub>:** In unfavorable service transactions, the effects of transaction-specific satisfaction on behavioral intentions are stronger when consumer attitudes toward the firm are favorable.

## 2.2 Control Variable

Prior experience is posited to influence attitude development, customer expectations, and behavioral intentions (Bolton, 1998; Boulding, Kalra, Staelin, & Zeithaml, 1993). While not a focus of the current research, a measure of prior experience is included as a control variable.

## 3. RESEARCH METHODS

The hypotheses are tested using multiple data collections across two studies. In Study 1, respondents reflect on a recent service experience from pre-defined industries that are categorized into favorable and unfavorable experiences post hoc. Findings from Study 1 are replicated and extended in Study 2 using two conceptualizations of customer satisfaction across customer-defined favorable and unfavorable experiences. A complete description of both studies and their results follows.

### 3.1 Measurement

Twenty-four measurement items capture the constructs of interest (measurement properties are identified in Table 1). All scales are adapted from previous studies. Because transaction-specific satisfaction and service quality are used, respondents answered questions on the basis of their perception of a specific encounter, not their overall impressions of satisfaction and service quality. All the items are identified in the Appendix.

*3.1.1 Customer Satisfaction.* In Study 1, satisfaction items that assess consumers' emotional response to their service experience are used, which is consistent with the literature.

For example, Locke (1967, 1969) proposes that satisfaction is best conceptualized as an emotional state that reflects an assessment of a person's experiences. Similarly, Hunt (1977) refers to satisfaction as the evaluation of an emotion and Oliver (1981) calls satisfaction an emotional assessment brought about by disconfirmed expectations. Thus, the satisfaction scale used in Study 1 is emotionally-based and requires consumers to assess the degree to which they experience positive emotions during a transaction. This construct is termed emotive satisfaction and the scale used is internally consistent across both studies (construct reliabilities of .95 and .98).

Based on Oliver's (1997) suggestion that satisfaction has evaluative overtones, a consumption satisfaction measure is added in Study 2. Consumption satisfaction is an evaluative response to a consumption experience and is less contingent on emotion. Four items from Oliver's (1997) consumption satisfaction scale are employed in order to test the robustness of our results across two measures and conceptualizations of customer satisfaction. The consumption satisfaction scale is internally consistent (construct reliability = .97).

*3.1.2 Perceived Service Quality.* A subset of Oliver's (1997) service quality measures similar to items used previously in service quality literature (e.g., Babakus & Boller 1992; Cronin & Taylor 1992) is utilized to assess transaction-specific service quality perceptions. The construct reliabilities for this scale are .96 and .97.

*3.1.3 Attitude toward the Service Provider.* Defining attitude toward a service provider as a predisposition to respond in a favorable or unfavorable manner toward a service provide, we follow the advice of Oliver (1981) and adapt five items from Osgood, Suci, & Tannenbaum (1957). Originally, the items evaluate consumer attitudes toward a product/brand using a semantic differential scale, but subsequent studies successfully adapt the items to various consumption experiences (e.g., Bagozzi, 1992; Oliver & Bearden, 1985). The adapted scale provides construct reliabilities of .91 and .94 across the two studies.

*3.1.4 Behavioral Intentions.* Zeithaml et al. (1996) suggest that favorable behavioral intentions are associated with a service provider's ability to get customers to (1) remain loyal, (2) not switch to another service provider, (3) pay price premiums, and (4) promote the firm through positive word-of-mouth. The four items that operationalize behavioral intentions based on the domains and measures suggested by Zeithaml et al. (1996) are similar to those reported and used throughout services marketing literature (e.g., Cronin & Taylor, 1992; Gotlieb et al., 1994). The scale has construct reliabilities of .94 and .95.

*3.1.5 Prior Experience.* Although few formal scales have been established for assessing prior experience with a service provider, recent research suggests that measures should determine the degree to which customers have used a service in the past (Boulding et al., 1993; Rust & Oliver, 2000). Thus, we assess prior experience with an item that measures the amount of prior usage on a Likert scale from 1 (very low) to 7 (very high).

### 3.2 Assessment of the Measures

The psychometric properties of multi-item scales are assessed using the aggregated data from each study. Results from confirmatory factor analyses indicate that the models offer good fit to the data in each sample (see Table 1).

The procedure outlined by Fornell and Larcker (1981) is used to assess construct reliability and discriminant validity for all scales in each data set. Construct reliabilities are consistently high, from .91 to .98, and the average variance extracted for each construct (67%–90%) is well above 50%, indicating that the measures capture more variance than error. Finally, the shared variance between any given pair of constructs falls below the average variance extracted for the constructs, thereby meeting Fornell and Larcker's (1981) stringent standard for discriminant validity. Scale statistics, including means, standard deviations, correlations, variances extracted and construct reliabilities, are presented in Table 1.

**TABLE 1:**  
Means, Standard Deviations, Correlations among the Variables,  
and Results of the Confirmatory Factor Analyses

Construct	STUDY 1				STUDY 2				1	2	3	4	5	6
	ICR	AVE	M	SD	ICR	AVE	M	SD						
1. Prior experience	-	-	4.92	1.73	-	-	4.62	1.93		.69*	.70*	.70*	.72*	.76*
2. Customer attitude	.91	.67	5.22	1.28	.94	.76	4.97	1.59	.53*		.86*	.82*	.87*	.87*
3. Service quality	.96	.87	5.07	1.35	.97	.90	4.55	1.82	.47*	.66*		.87*	.89*	.89*
4. Emotive satisfaction	.95	.77	4.37	1.50	.98	.92	3.90	2.05	.53*	.63*	.66*		.89*	.87*
5. Consumption Satisfaction					.97	.88	4.59	2.08						.91*
6. Behavioral intentions	.94	.81	5.12	1.65	.95	.84	4.38	2.06	.72*	.74*	.71*	.74*		
<b>CFA Results</b>														
	$\chi^2$		df		CFI		NNFI		SRMR					
STUDY 1	855.98		146		.99		.99		.039					
STUDY 2	879.39		199		.99		.99		.029					
Notes:	ICR = internal construct reliability; AVE = average variance extracted; M = mean; SD = standard deviation. Intercorrelations for Study 1 appear in the lower half of the matrix; those for Study 2 are in the upper half of the matrix. * $p < .05$ .													

**4. STUDY 1**

**4.1 Sample and Data Collection**

Respondents were asked to reflect on their most recent encounter in one of four industries (retail, fast-food, banking, and sit-down dining; n = 970). Six specifically trained student interviewers who had completed a course in research methods collected all data. During a training session, one author discussed survey protocol and demographic quota details. Gender and age quotas were employed to

ensure a representative sample. Following the data collection, we split the sample into favorable and unfavorable service experience groupings based using valence measures introduced in Brady and Cronin (2001).

Respondents were interviewed at multiple locations within the United States (Boston, MA, East Lansing, MI, and Tallahassee, FL) and included initial screenings to ensure respondents' familiarity with, and previous usage of, the services evaluated. Interviewers eliminated persons having completed an

alternate version of the survey or not passing the screening test. Interviewers collected respondents' telephone numbers and a comparison across all samples ensured independent observations. Moreover, we contacted 25% of the sample via email to validate their answers to the survey. We were able to get confirmation from 124 respondents. Respondent demographics reasonably resembled the characteristics of the region. Specifically, the respondents' average age was 30 years and 52 percent were female. Caucasians accounted for 79.7 percent of the respondents while 10.7 percent were African-American, 5.4 percent Hispanic, 1.0 percent Asian American, and 3.2 percent did not classify themselves. The sample was relatively well educated with 39.9 percent having four-year college degrees.

#### 4.2 Assessment of Hypotheses

To assess the interaction between the predictors (service quality and satisfaction) and the moderator (customer attitude) across both high and low levels of service, samples were portioned into sub-samples representing favorable and unfavorable service transactions. Specifically, the sample was split into two groups on the basis of overall satisfaction evaluations. Consumers whose satisfaction ratings were above the neutral point on the customer satisfaction scale were classified in the favorable transaction group and consumers whose satisfaction ratings were equal or below the midpoint on the scale were classified in the unfavorable transaction group.

The hypotheses were tested using a three-step approach that (1) tested interaction effects using moderated regression analysis (MRA), (2) examined the significance of slopes using simple slopes tests, and (3) calculated the range of attitude at which transaction-specific effects were significant using regions of significance analysis. To conduct the MRAs, independent and control variables were mean centered as recommended by Aiken and West (1991) then the control variable (prior experience), the independent variable (satisfaction or service quality), and the moderator (attitude toward the service provider) were entered into the regression equation. In the final step, the mean-centered interaction term (formed by

multiplying the mean-centered independent variable with the mean-centered moderator) was entered into the regression equation. Moderation was supported if the interaction term explained a significant ( $p < .05$ ) portion of the variance in behavioral intentions, above and beyond the main effects of prior experience, the independent variable (satisfaction or service quality), and attitude.

To further probe interaction effects, simple slopes tests were conducted using high and low levels of attitude (+1.0 and -1.0 standard deviations from the mean; e.g., Aiken and West 1991). Simple slopes tests provide an assessment of the conditional effects of the independent variable (satisfaction or service quality) at various levels of attitude toward the service provider. These tests provide insight into the magnitude of the interaction.

Finally, regions of significance for each interaction were identified allowing the determination of the range of consumers' attitudes toward the service provider for which the effects of the independent variable (satisfaction or service quality) on the dependent variable (behavioral intentions) were significant (Curran, Bauer, & Willoughby, 2004). This test is advantageous because it allows the calculation of the exact level of attitude at which transaction-specific evaluations no longer influence behavioral intentions. Historically, regions of significance tests were only possible when dealing with categorical moderators. However, Curran et al. (2004) demonstrated that these tests can be applied to continuous moderators by making minor alterations to the calculations used in the Johnson-Neyman Technique (Johnson & Neyman, 1936) for categorical moderators. It is also important to note that due to the fact that the data were part of a field study, any interaction effects accounting for a one percent increase in the variance explained in the model should be considered acceptable and noteworthy (McClelland & Judd, 1993).

#### 4.3 Results: Perceived Service Quality–Behavioral Intentions Relationship

To test the moderating effects of attitude on the service quality à behavioral intentions relationship, MRAs were conducted for both

favorable and unfavorable service transaction sub-samples. Results of the MRA and simple slopes analyses are presented in Tables 2 and 3.

4.3.1 *Favorable Service Transaction.* In the favorable service transaction sub-sample, support for the interaction effects proposed in *H1a* is found. Specifically, the inclusion of the interaction term explained a significant portion

of variance in behavioral intentions above and beyond the main effects of prior experience, service quality, and attitude ( $\Delta R^2 = .018$ ,  $p < .05$ ). Simple slopes analysis (see Table 3) provided additional support for the moderating effects, as the effects of service quality were significantly stronger when attitudes were unfavorable. Lastly, the calculation of the regions of significance revealed that service

**TABLE 2:**  
**Results of Moderated Regression Analyses**

Predictors	Standardized Regression Coefficients			
	STUDY 1		STUDY 2	
	Favorable (N = 540)	Unfavorable (N = 430)	Favorable (N = 213)	Unfavorable (N = 208)
<b><i>Service Quality Interaction Analyses</i></b>				
Step 1:				
Prior experience	.28*	.42*	.16*	.22*
Service quality	.44*	.24*	.34*	.30*
Attitude	.29*	.42*	.37*	.45*
$R^2$	.45	.81	.56	.72
Step 2:				
Service quality x Attitude	-.15*	.11*	-.18*	.18*
$R^2$	.47	.82	.59	.75
$\Delta R^2$	.018*	.011*	.030*	.031*
<b><i>Emotive Satisfaction Interaction Analyses</i></b>				
Step 1:				
Prior experience	.31*	.42*	.18*	.23*
Emotive Satisfaction	.41*	.30*	.23*	.19*
Attitude	.21*	.36*	.45*	.51*
$R^2$	.42	.83	.52	.69
Step 2:				
Emotive Satisfaction x Attitude	-.13*	.08*	-.20*	.14*
$R^2$	.43	.83	.56	.71
$\Delta R^2$	.016*	.006*	.039*	.016*
<b><i>Consumption Satisfaction Interaction Analyses</i></b>				
Step 1:				
Prior experience	-	-	.17*	.22*
Consumption Satisfaction	-	-	.43*	.29*
Attitude	-	-	.28*	.44*
$R^2$	-	-	.60	.71
Step 2:				
Consumption Satisfaction x Attitude	-	-	-.12*	.15*
$R^2$	-	-	.61	.73
$\Delta R^2$	-	-	.009*	.021*

Note: The standardized regression coefficients from the final stage of analysis are presented.

\*  $p < .05$

**TABLE 3:**  
**Results of Simple Slope Analyses**

Sample	Interaction	Slope at Varying Levels of Attitude		
		Unfavorable	Favorable	
STUDY 1	Favorable Transactions	Service quality x Attitude	.73*	.37*
		Emotive Satisfaction x Attitude	.50*	.27*
	Unfavorable Transactions	Service quality x Attitude	.14*	.44*
		Emotive Satisfaction x Attitude	.30*	.63*
STUDY 2	Favorable Transactions	Service quality x Attitude	.49*	.28*
		Emotive Satisfaction x Attitude	.38*	.09
	Unfavorable Transactions	Consumption Satisfaction x Attitude	.55*	.36*
		Service quality x Attitude	.15*	.57*
	Unfavorable Transactions	Emotive Satisfaction x Attitude	.07	.41*
		Consumption Satisfaction x Attitude	.23*	.71*

\*  $p < .05$

quality had a significant and positive effect on behavioral intentions for the entire range of consumer attitudes, but the strength of these effects was strongest when attitudes were unfavorable. These results support  $H_{1a}$ .

**4.3.2 Unfavorable Service Transactions.** Support was also found for  $H_{1b}$  in the unfavorable service transaction sub-sample. Again, the inclusion of the interaction term explained a significant portion of variance in behavioral intentions above and beyond the main effects of prior experience, service quality, and attitude ( $\Delta R^2 = .011$ ,  $p < .05$ ). The simple slopes calculation also supported the proposed effects as the effects of service quality became stronger as attitudes become more favorable (see Table 3). Finally, the regions of significance analysis suggested service quality had significant and positive effects on behavioral intentions, except when customer attitudes toward the service provider were very unfavorable. Specifically, the tests indicated that the effects of service quality on behavioral intentions were positive and significant for attitude responses that range from 1.39 – 7.00. These results provide strong support for  $H_{1b}$ .

#### 4.4 Results: Emotive Satisfaction–Behavioral Intentions Relationship

Moderating effects proposed in  $H_{2a,b}$  were tested using the same procedures. To test the

moderating effects of attitude on the satisfaction à behavioral intentions relationship, MRAs for both the favorable and unfavorable service transaction sub-samples produced results that were analyzed with simple slopes analyses and regions of significance calculations.

**4.4.1 Favorable Service Transaction.** Results of MRAs for favorable service transactions provided strong support for  $H_{2a}$  as the inclusion of the interaction term provided significant improvement in variance explained in behavioral intentions ( $\Delta R^2 = .016$ ,  $p < .05$ ). These results were probed using simple slopes analysis (see Table 3), which provided additional support for  $H_{2a}$  as effects of satisfaction were stronger when consumer attitudes were unfavorable. The regions of significance analysis suggested that satisfaction had direct effects on behavioral intentions across the entire range of attitude scores; however, these effects were stronger when attitudes were unfavorable. These results provided support for  $H_{2a}$ .

**4.4.2 Unfavorable Service Transaction.** Support for the interaction effects proposed in  $H_{2b}$  is found in unfavorable service transaction. Specifically, the inclusion of the interaction term improved the explained variance in behavioral intentions ( $\Delta R^2 = .006$ ,  $p < .05$ ). Simple slopes analysis supported the



hypothesized effect as satisfaction's effect was greater effect when attitudes were favorable. Finally, calculating regions of significance revealed satisfaction had a significant and positive effect on behavioral intentions except when customer attitudes were very unfavorable. Specifically, tests indicated that satisfaction effects on behavioral intentions were positive and significant for attitude responses ranging from 0.70 – 7.00. These results provide strong support for  $H_{2b}$ .

#### 4.5 Discussion

The results of Study 1 support the proposed effects. Specifically, transaction specific evaluations' (service quality and emotive satisfaction) effects on behavioral intentions were stronger when they contrasted with consumers' global attitudes. These findings were supported by MRA and simple slopes analysis and the effects were illustrated with regions of significance testing.

Although these results provide new insight into the interactions between transaction-specific evaluations of service and global attitudes, there are two limitations to be addressed. First, favorable and unfavorable service sub-samples were developed post hoc and thereby may not provide the best representation of successful/failed service encounters. Second, the satisfaction measure in the first study was strictly emotive and may not represent the notion that satisfaction be partly a cognitive evaluation (Oliver, 1997). Both limitations are addressed in Study 2.

### 5. STUDY 2

#### 5.1 Sample and Data Collection

Data were gathered in a manner similar to Study 1. However, to avoid potential problems categorizing respondents into favorable and unfavorable service transaction samples post hoc, half the respondents evaluated a recent unfavorable service transaction ( $n = 208$ ) and the other half a favorable one ( $n = 213$ ) resulting in two samples of consumers whose overall demographic makeup resembled the demographics of Study 1 and the regional populations. In this study, we examined the same four industries (retail, fast-food, banking,

and sit-down dining) in an attempt to create consistency across the two studies for post hoc discussion.

#### 5.2 Measurement

The same items were used to assess service quality, emotive satisfaction, customer attitudes, prior experience, and behavioral intentions in Study 2. In addition, we included a measure of consumption satisfaction (Oliver, 1997). Scale measurement properties were confirmed using the same process as in Study 1 and all scales were reliable and valid. Complete scale statistics are presented in Table 1.

#### 5.3 Assessment of Hypotheses

The assessment of hypotheses was simplified in Study 2 by having respondents reflect on either a favorable or unfavorable service transaction. This process avoided categorizing consumers post hoc. To test the effects proposed in  $H_1$  and  $H_2$ , the same three-step approach used in Study 1 was employed.

#### 5.4 Results: Perceived Service Quality–Behavioral Intentions Relationship

MRA results provided strong support for  $H_1$  in the both favorable and unfavorable service transaction as the inclusion of the attitude – service quality interaction term provided a significant improvement in the variance explained in behavioral intentions (favorable transaction:  $\Delta R^2 = .030$ ,  $p < .05$ ; unfavorable transaction:  $\Delta R^2 = .031$ ,  $p < .05$ ). Specifically, the effects of service quality were stronger when they contrasted with pre-existing consumer attitudes (see Tables 2 and 3). Regions of significance analysis suggested that service quality had a significant and positive effect on behavioral intentions for the entire range of customer attitudes for favorable transactions. In unfavorable transactions, service quality had a significant and positive effect on behavioral intentions when attitudes were greater than 2.39. These results support  $H_1$  and replicate Study 1 findings.

**5.5 Results: Emotive Satisfaction–Behavioral Intentions Relationship**

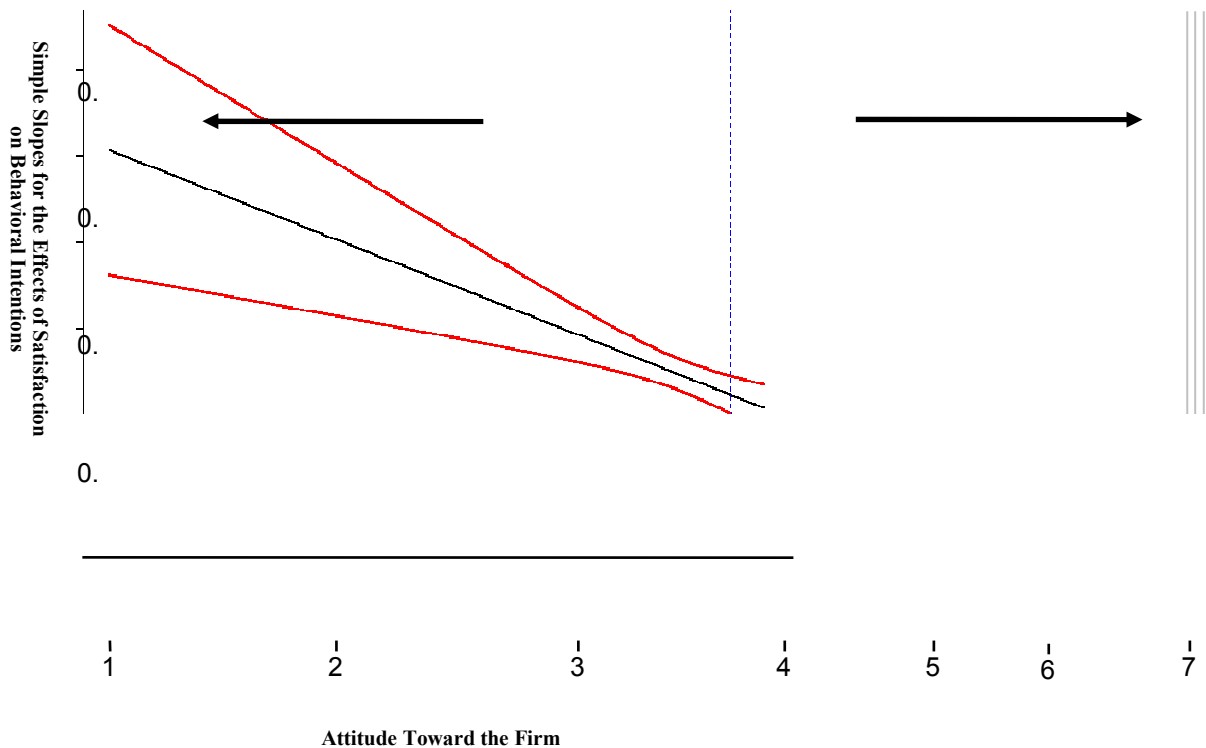
Including attitude – emotive satisfaction interaction terms improved the explained variance in behavioral intentions in both favorable ( $\Delta R^2 = .039, p < .05$ ) and unfavorable transactions ( $\Delta R^2 = .016, p < .05$ ) supporting  $H2$ . All effects were as hypothesized. Regions of significance analysis demonstrated that for favorable transactions, satisfaction had a significant positive effect on behavioral intentions, except for when attitudes were very favorable (greater than 6.68). For unfavorable transactions, emotive satisfaction had significant effects on behavioral intentions

when attitudes were more favorable (greater than 3.02). Graphical depictions of regions of significance are provided in Figures 1 (favorable transaction) and 2 (unfavorable transaction).

**5.6 Results: Consumption Satisfaction–Behavioral Intentions Relationship**

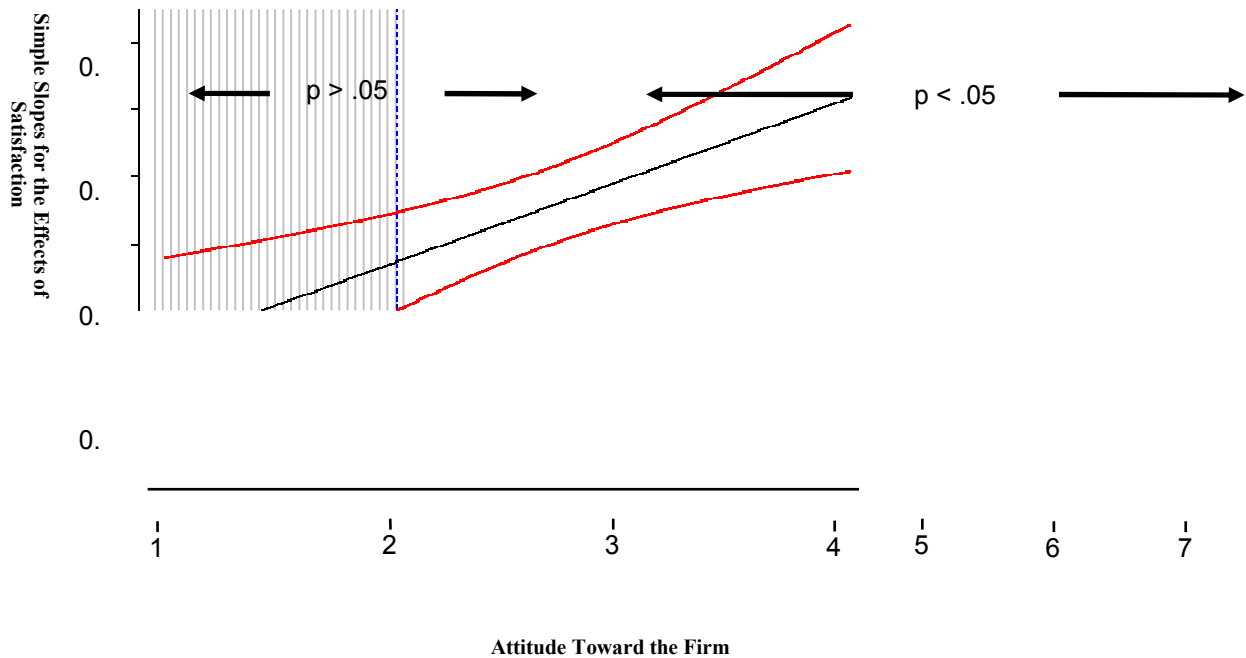
Finally, to demonstrate the consistency of the hypothesized effects across varying conceptualizations of customer satisfaction, we tested  $H2$  using a cognitive satisfaction assessment rather than Study 1’s emotive measure. The results provided support for  $H2$  across favorable and unfavorable service

**FIGURE 1:**  
**Confidence Bands for Simple Slope Calculations in Favorable Service Transactions:**  
**The Effects of Emotive Satisfaction in Study 2**



Notes: Simple slope estimates in the shaded area are not significant ( $p > .05$ ). Simple slopes are significant ( $p < .05$ ) when attitude is less than 6.68. The red bands represent the confidence intervals (95%) around the simple slope estimates.

**FIGURE 2:**  
**Confidence Bands for Simple Slope Calculations in Unfavorable Service Transactions:**  
**The Effects of Emotive Satisfaction in Study 2**



Notes: Simple slope estimates in the shaded area are not significant ( $p > .05$ ). Simple slopes are significant ( $p < .05$ ) when attitude is greater than 3.02. The red bands represent the confidence intervals (95%) around the simple slope estimates

experiences as adding interaction terms in the regression equations improved the variance explained in behavioral intentions in both samples (favorable transaction:  $\Delta R^2 = .009$ ,  $p < .05$ ; unfavorable transaction:  $\Delta R^2 = .021$ ,  $p < .05$ ). The effect was as hypothesized. Simple slope calculations and regions of significance analysis suggested that in favorable transactions, consumption satisfaction had a positive effect on behavioral intentions across the full range of attitudes, but these effects were significantly stronger when attitudes were unfavorable. For unfavorable transactions, consumption satisfaction significantly influenced behavioral intentions when attitudes were greater than 2.37.

**5.7 Discussion**

The results of Study 2 replicated Study 1’s findings. The effects were consistent for both emotive satisfaction and consumption

satisfaction. Thus, the results provide robust support for the hypotheses.

**6. GENERAL DISCUSSION**

The incomplete understanding of how transaction-specific service evaluations affect behavioral intentions represents a critical gap in marketing literature. Based on studies that suggest customer attitudes influence decision-making and behavioral intentions in various contexts (e.g., Bolton & Drew, 1991; Oliver, 1981), the role of attitude in service models is considered to address this gap. The results suggest that the effects of customer satisfaction and service quality depend on customers’ attitude toward the service provider. Specifically, service quality and satisfaction influence behavioral intentions more when they contrast with customers’ global attitudes toward the firm. MRA results from favorable and unfavorable service transactions support this

contention and the results suggest that failure to account for consumer attitudes leads to erroneous interpretations of the influence of satisfaction and service quality on behavioral intentions. Importantly, these relationships hold for both emotive and consumption measures of satisfaction.

### 6.1 Managerial Implications

The results apply broadly to management, but highlight the need for awareness of the effects of global assessments, such as consumer attitudes, in addition to service quality and satisfaction. Service companies may salvage relationships with consumers having unfavorable attitudes toward their firm by delivering great experiences as the effects of service quality excellence and delight (satisfaction) amplify when consumers have unfavorable attitudes *a priori*. The results suggest, however, that favorable attitudes don't provide a strong buffer against disappointing service experiences. In fact, the effects of poor service on behavioral intentions are strongest for consumers with favorable overall attitudes.

Managing consumer attitudes, satisfaction, and service quality requires research. Post-purchase research, a major source of information for strategic planners (Oliver, 1997), yields greater benefits if consumers' attitudes toward service providers are assessed in addition to evaluations of service quality and satisfaction. Such measurements provide a better understanding of how service evaluations interact and provide a more accurate assessment.

The findings have important implications for firms like Renault and many others rewarding employees based on service quality and satisfaction assessments. Firms using this approach may find that improvements in customer assessments don't yield analogous improvements in behavioral intentions or other outcome measures. Our findings suggest firms gain more from delivering great service when customers enter the transaction with an *a priori* unfavorable attitude toward the firm. This is not to say that firms should foster unfavorable consumer attitudes. This study is intended to provide a better understanding of when and by how much firms can expect the delivery of

great service and customer satisfaction to impact behavioral intentions.

Firms tracking customer dissatisfaction and service failures should not interpret stable behavioral intentions scores as a sign that problems are not worsening. If customers enter transaction with unfavorable attitudes towards the provider the relative effects of a service encounter failure may not significantly impact behavioral intentions. This effect may begin to occur even when customer attitudes are moderate (Figure 2). Alternatively, firms having customers with unfavorable attitudes stand to gain by providing great service experiences. This is a powerful incentive to correct service delivery problems flaws and follow up on customer complaints.

### 6.2 Research Implications

An objective of this research was to suggest that models of consumer decision making in services failing to account for the effects of attitude may be misidentified. Our results confirm that failure to measure and account for consumers' attitudes toward service providers leads to erroneous conclusions about consumers' decisions. Like most research, our study identifies both questions and answers. The effects of consumer attitudes are considered, but other possible moderators of the customer satisfaction à behavioral intentions and service quality à behavioral intentions relationships should also be assessed. Researchers may consider how factors such as switching costs affect the efficacy of customer satisfaction and service quality initiatives and, ultimately, customer loyalty (Jones & Sasser, 1995). Product involvement, complexity, and other factors may also moderate consumers' willingness to repurchase.

Our results underscore the need to examine contingency effects. A marketing mantra suggests that the right answer in marketing is always "it depends." In current research, the question of why customer satisfaction and service quality perceptions are not always closely related to behavioral intentions is answered; these effects depend on consumers' attitudes toward the service provider. The regions of significance tests and closer inspections of Figures 1 and 2 reveal the effect

of attitude on behavioral intentions is so strong that, at certain levels, service quality and satisfaction effects are no longer significant. This underscores the need for research to re-examine established relationships in the presence of moderating variables. Moreover, the results reveal the efficacy and benefits of conducting regions of significance testing, in addition to simple slope analysis, as a post hoc probing technique for moderation analyses.

### 6.3 Contributions and Limitations

The results presented are most relevant to service providers that continually measure customer satisfaction and service quality. It is important to note that evaluating quality and satisfaction is not sufficient when predicting customers' intentions. Employee incentive programs and financial projections that are based solely on quality or satisfaction ratings may not be effective because they might not be directly related to customers' behavioral intentions. If consumers' attitudes toward a firm are not considered, predicting behavioral intentions is difficult.

Finally, several limitations need noting. The data were gathered in one region of the United States, so characteristics unique to service consumers in this area may not be generalizable. Additionally, only a select set of service providers were considered. Replication is needed to increase confidence in the results. Furthermore, the field survey method may be a limitation as it precludes attributions of true causes and effects.

## 7. CONCLUSION

The goal was to present a framework that explains inconsistencies in the effects of customer satisfaction and service quality on behavioral intentions. In doing so, evidence is provided that consumers' attitudes toward a service provider significantly moderate both the satisfaction to behavioral intentions and the service quality to behavioral intentions relationships. The moderating effects of customer attitudes are strong enough to mitigate the effects of service quality and satisfaction completely in certain conditions. Although exceptional satisfaction and service quality may not always drive behavioral intentions, both remain of paramount interest to managers and

researchers. The results confirm the need to provide great customer service, which can dramatically improve behavioral intentions among consumers with unfavorable attitudes.

## REFERENCES

- Aiken, L.S. & West, S.G. (1991), *Multiple regression: testing and interpreting interactions*, Sage Publications, Thousand Oaks, CA.
- Ajzen, I. & Fishbein, M. (1977), "Attitude-behavior relations: a theoretical analysis and review of empirical research," *Psychological Bulletin*, 84(5), 888-918.
- Akroush, M. N., & Khatib, F. S. (2009). The Impact of Service Quality Dimensions on Performance: An Empirical Investigation of Jordan's Commercial Banks. *Journal Of Accounting, Business & Management*, 16(1), 22-44.
- Amato-McCoy, D. M. (2008). RFID: Staples' Easy Button. *Chain Store Age*, 84(1), 71.
- Babakus, E. & Boller, G.W. (1992), "An empirical assessment of the SERVQUAL scale," *Journal of Business Research*, 24(3), 253-68.
- Bagozzi, R.P. (1992), "The self regulation of attitudes, intentions, and behavior," *Social Psychology Quarterly*, 55 (2), 178-204.
- Bearden, W.O. & Teel, J.E. (1983), "Selected determinants of consumer satisfaction and complaint reports," *Journal of Marketing Research*, 20 (1), 21-8.
- Bitner, M.J. (1990), "Evaluating service encounters: the effects of physical surrounding and employee responses," *Journal of Marketing*, 54 (2), 69-82.
- Bolton, R.N. (1998), "A dynamic model of the duration of the customer's relationship with a continuous service provider: the role of satisfaction," *Marketing Science*, 17 (1), 45-66.
- & Drew, J.H. (1991), "A multistage model of customers' assessments of service quality and value," *Journal of Consumer Research*, 17 (4), 875-84.
- Boulding, W.A., Kalra, A., Staelin, R., & Zeithaml, V.A. (1993), "A dynamic process model of service quality: from expectations to behavioral intentions," *Journal of Marketing Research*, 30 (1), 7-28.

- Brady, M.K. & Cronin, J.J. Jr. (2001), "Some new thoughts on conceptualizing perceived service quality: a hierarchical approach," *Journal of Marketing*, 65 (3), 34-49.
- , Knight, G.A., Cronin, J.J. Jr., Hult, G.T.M., & Keillor, B.D. (2005), "Removing the contextual lens: a multinational, multi-setting comparison of service evaluation models," *Journal of Retailing*, 81 (3), 215-30.
- Cronin, J.J. Jr. & Taylor, S.A. (1992), "Measuring service quality: a reexamination and extension," *Journal of Marketing*, 56 (3), 55-68.
- , Brady, M.K. & Hult, G.T. (2000), "Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments," *Journal of Retailing*, 76 (2), 193-218.
- Curran, P.J., Bauer, D.J., & Willoughby, M.T. (2004), "Testing main effects and interactions in latent curve analysis," *Psychological Methods*, 9 (2), 220-37.
- Dabholkar, P.A. (1995), "A contingency framework for predicting causality between satisfaction and service quality", in Kardes, F.R. and Suhan, M. (Eds.), *Advances in Consumer Research*, Association for Consumer Research, Provo, UT, 22), 101-6.
- Dagger, T. S., & Sweeney, J. C. (2007). Service Quality Attribute Weights. *Journal of Service Research*, 10(1), 22-42.
- de Saint-Seine, S. (2006). "Microsoft to devote \$200 million more to technical support," *Automotive News Europe*, 10 July, p. 6.
- Fishbein, M. & Ajzen, I. (1980), *Understanding attitude and predicting social behavior*, Prentice Hall, Englewood Cliffs, NJ.
- Fornell, C. & Larcker, D.F. (1981), "Evaluation Structural Equations Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (1), 39-50.
- Gotlieb, J.B., Grewal, D. & Brown, S.W. (1994), "Consumer satisfaction and perceived quality: complementary or divergent constructs?" *Journal of Applied Psychology*, 79 (6), 875-85.
- Helson, H. (1964), *Adaptation level theory: An experimental systematic approach to behavior*. Harper and Row, New York.
- Hunt, H.K. (1977), "CS/D—overview and future research directions," in Hunt, H.K. (Ed.), *Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction*, Marketing Science Institute, Cambridge, MA.
- Johnson, P.O. & Neyman, J. (1936), "Tests of certain linear hypotheses and their application to some educational problems," *Statistical Research Memoirs*, (1), 57-93.
- Jones, T.O. & Sasser, W.E. Jr. (1995), "Why satisfied consumers defect." *Harvard Business Review*, 73 (6), 88-99.
- Korea Times*. (2005), "LG stresses customer satisfaction," 29 August.
- Locke, E.A. (1967), "Relationship of success and expectation to affect on goal seeking tasks," *Journal of Personality and Social Psychology*, 7 (2), 125-34.
- (1969), "What is job satisfaction," *Organizational Behavior & Human Performance*, 4 (2), 309-23.
- McClelland, G.H. & Judd, C.M. (1993), "Statistical difficulties of detecting interaction and moderator effects," *Psychological Bulletin*, 114 (2), 376-90.
- Mittal, V. & Kamakura, W.A. (2001), "Satisfaction, repurchase intent, and repurchase behavior: investigating the moderating effect of customer characteristics," *Journal of Marketing Research*, 38 (1), 131-42.
- Mittal, S., & Gera, R. (2012). Relationship between Service Quality Dimensions and Behavioural Intentions: An SEM Study of Public Sector Retail Banking Customers in India. *Journal of Services Research*, 12(2), 147-171.
- Mohr, L.A. & Bitner, M.J. (1995), "The role of employee effort in satisfaction with service transactions," *Journal of Business Research*, 32 (3), 239-52.
- Oliver, R.L. (1980), "A cognitive model of antecedents and consequences of satisfaction decisions," *Journal of Marketing Research*, 17 (4), 460-69.
- (1981), "Measurement and evaluation of satisfaction processes in retail settings," *Journal of Retailing*, 57 (3), 25-48.
- (1989), "Processing of the satisfaction response in consumption: a suggested framework and research propositions," *Journal of Consumer Satisfaction, Dissatisfaction, and Complaining Behavior*, 2), 1-16.

---- (1997), *Satisfaction: a behavioral perspective on the consumer*, McGraw Hill, New York.

---- & Bearden, W.O. (1985), "Crossover effects in the theory of reasoned action: a moderating influence attempt," *Journal of Consumer Research*, 12 (3), 324-41.

Osgood, C.E., Suci, G.J., & Tannenbaum, P.H. (1957), *The measurement of meaning*. University of Illinois Press, Urbana, IL.

Reichheld, F.F. (1996), *The loyalty effect: the hidden force behind growth, profits, and lasting value*. Harvard Business School Press, Boston, MA.

Rust, R.T. & Oliver, R.L. (2000), "Should we delight the customer?" *Journal of the Academy of Marketing Science*, 28 (1), 86-94.

Sabharwal, N., Soch, H., & Kaur, H. (2010). Are We Satisfied with Incompetent Services? A Scale Development Approach for Service Recovery. *Journal of Services Research*, 10 (1), 125-142.

*Wall Street Journal*. (1998), "Microsoft to devote \$200 million more to technical support," 24 July 24, B5.

Zeithaml, V.A., Berry, L.L., & Parasuraman, A. (1996), "The behavioral consequences of service quality," *Journal of Marketing*, 60 (2), 31-46.

**APPENDIX A:  
Survey Instrument**

**Service Quality:** Please circle the number that best reflects your assessment of the service that you received during this transaction.

1. Poor	1	2	3	4	5	6	7	Excellent
2. Inferior	1	2	3	4	5	6	7	Superior
3. Low Quality	1	2	3	4	5	6	7	High Quality
4. Low Standards	1	2	3	4	5	6	7	High Standards

**Emotive Satisfaction:** Please indicate how you felt about your service transaction on a scale of 1 to 7, where 1 = "Not at All" and 7 = "Extremely":

1. Delighted
2. Joy
3. Elation
4. Pleasure
5. Happiness
6. Enjoyment

**Consumption Satisfaction:** Please choose the response that best reflects your level of agreement with the following statements, where 1 = "Strongly Disagree" and 7 = "Strongly Agree":

1. I am satisfied with my decision to visit this service provider.
2. My choice to visit this service provider was a wise one.
3. I think that I did the right thing when I visited this service provider.
4. I truly enjoyed my visit to this facility.

**Customer Attitude:** Please circle the number that best reflects your overall attitude toward the service provider.

1-4. I think visiting this service provider is:								
Extremely Foolish	1	2	3	4	5	6	7	Extremely Wise
Extremely Irrational	1	2	3	4	5	6	7	Extremely Rational
Extremely Unpleasant	1	2	3	4	5	6	7	Extremely Pleasant
Extremely Detrimental	1	2	3	4	5	6	7	Extremely Beneficial
5. My overall attitude toward this provider is:								
Extremely Negative	1	2	3	4	5	6	7	Extremely Positive

**Behavioral Intentions:** Please indicate your intentions toward this service provider on a scale of 1 to 7, where 1 = "Very Low" and 7 = "Very High":

- The probability that I will visit this service provider again is...
- The likelihood that I would recommend visiting this service provider to a friend is...
- I would classify my loyalty to this service provider as...
- The likelihood that I will say good things about this service provider to other is...

**Prior Experience:** Please circle the number that best reflects your experience with the firm.

1. My past usage of this facility has been:								
Very Low	1	2	3	4	5	6	7	Very High